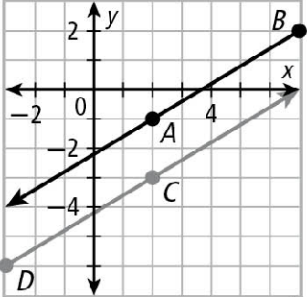
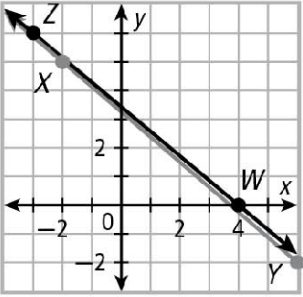
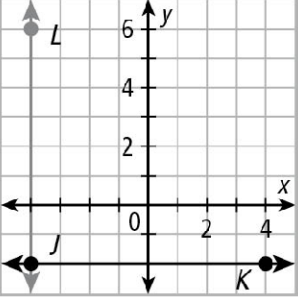


Question	Solution
10.	<p>Substitute $(0, 7)$ for (x_1, y_1) and $(0, 3)$ for (x_2, y_2) in the slope formula and then simplify.</p> $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 7}{0 - 0} = \frac{-4}{0}$ <p>The slope is undefined.</p>
11.	<p>Substitute $(5, -2)$ for (x_1, y_1) and $(3, -2)$ for (x_2, y_2) in the slope formula and then simplify.</p> $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - (-2)}{3 - 5} = \frac{0}{-2} = 0$
13.	<p>Substitute $(0, 4)$ for (x_1, y_1) and $(3, -3)$ for (x_2, y_2) in the slope formula and then simplify.</p> $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-3 - 4}{3 - 0} = \frac{-7}{3} = -\frac{7}{3}$
14.	<p>Use the points $(2.5, 100)$ and $(5, 475)$ to graph the line and find the slope.</p> $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{475 - 100}{5 - 2.5} = \frac{375}{2.5} = 150$ <p>The slope is 150, which means that the plane is flying at an average speed of 150 mi/h.</p>
15.	 <p> $\text{slope of } \overleftrightarrow{AB} = \frac{2 - (-1)}{7 - 2} = \frac{3}{5}$ $\text{slope of } \overleftrightarrow{CD} = \frac{-6 - (-3)}{-3 - 2} = \frac{-3}{-5} = \frac{3}{5}$ </p> <p>The slopes are the same, so the lines are parallel.</p>

Question	Solution
16.	 <p> slope of $\overleftrightarrow{XY} = \frac{-2 - 6}{6 - (-2)} = \frac{-8}{8} = -1$ slope of $\overleftrightarrow{ZW} = \frac{0 - 5}{4 - (-2)} = \frac{-5}{6} = -\frac{5}{6}$ The slopes are not the same, so the lines are not parallel. The product of the slopes is not -1, so the lines are not perpendicular. </p>
17.	 <p> \overleftrightarrow{JK} is horiz. and \overleftrightarrow{JL} is vert, so the lines are perpendicular. </p>